

image

**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Serial No. : 09/853,298
Applicants : Nancy P. CAMACHO et al.
Filed : May 10, 2001
For : DETERMINATION OF THE
ULTRASTRUCTURE OF
CONNECTIVE TISSUE BY AN...
Art Unit : 3737
Examiner : Ruth S. Smith
Docket No. : 00328/RSB
Customer No.: 01933
Confirmation No.: 6040

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify this
correspondence is being
deposited with the United
States Postal Service with
sufficient postage as First
Class mail in an envelope
addressed to:
Commissioner for Patents,
P.O. Box 1450
Alexandria, VA 22313-1450
on the date noted below

Attorney: Richard S. Barth

Dated: APRIL 20, 2004

In the event that this Paper
is late filed, and the
necessary petition for
extension of time is not filed
concurrently herewith, please
consider this as a Petition
for the requisite extension of
time, and to the extent not
tendered by check attached
hereto, authorization to
charge the extension fee,
or any other fee required
in connection with this
Paper, to Account No. 06-1378.

**REQUEST FOR INITIALED COPIES OF
FORMS PTO/SB/08A AND PTO/SB/08B**

S I R :

Enclosed with the April 6, 2004 Office Action were copies of
sheets 1 to 5 of the Form PTO/SB/08B dated August 22, 2001, with
a diagonal line drawn through all publications and the following
handwritten notation: "NO COPIES."

Also enclosed with the April 6, 2004 Office Action was a
copy of the Form PTO/SB/08A dated March 11, 2004 with a line
drawn through USP 6,230,044. No reason was provided in the
April 6, 2004 Office Action for such line being drawn through USP
6,230,044.

Submitted concomitantly herewith are the following:

(1) Sheets 1 to 5 of the Form PTO/SB/08B dated August 22, 2001 and copies of all the publications cited on sheets 1 to 5 of the Form PTO/SB/08B dated August 22, 2001; and

(2) Form PTO/SB/08A dated March 11, 2004 and a copy of USP 6,230,044.

The Examiner is respectfully requested to return copies of sheets 1 to 5 of the Form PTO/SB/08B dated August 22, 2001 and Form PTO/SB/08A dated March 11, 2004 with the Examiner's initials in the left column next to each cited publication to indicate that the cited publications were considered and made of record.

Frishauf, Holtz, Goodman
& Chick, P.C.
767 Third Ave., 25th Floor
New York, NY 10017-2023
Tel. Nos. (212) 319-4900
(212) 319-4551/Ext. 219
Fax No.: (212) 319-5101
E-Mail Address: BARTH@FHGC-LAW.COM
RSB/ddf

Respectfully submitted,



Richard S. Barth
Reg. No. 28,180

Encs.: (1) Copies of sheets 1 to 5 of Form PTO/SB/08B dated August 22, 2001 with copies of all the publications cited therein

(2) Copy of Form PTO/SB/08A dated March 11, 2004 with a copy of USP 6,230,044



Please type a plus sign (+) inside this box →

+

PTO/SB/08B (08-00)

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/853,298
				Filing Date	May 10, 2001
				First Named Inventor	Nancy CAMACHO
				Group Art Unit	2878
				Examiner Name	
Sheet	1	of	5	Attorney Docket Number	00328/RSB

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		<p><u>Infrared and Raman Spectroscopy of Biological Materials</u>, Eds. Gremlich, H.U., Yan, B., New York, Marcel-Dekker, pp. 323-377 (2001)</p> <p>Camacho, N.P., Hou, L., Toledano, T.R., Ilg, W.A., Brayton, C.F., Raggio, C.L., Root, L., and Boskey, A.L., "The Material Basis for Reduced Mechanical Properties in Oim Mice Bones", <u>J. Bone Miner. Res.</u>, <u>14</u>, pp. 264-272, (1999)</p> <p>Lazarev, Y.A., Grishkovsky, B.A., and Khromova, T.B., "Amide I Band of IR Spectrum and Structure of Collagen and Related Polypeptides", <u>Biopolymers</u>, <u>24</u>, pp. 1449-1478, (1985)</p> <p>Liu, K.Z., Dembinski, T.C., and Mantsch, H.H., "Rapid Determination of Fetal Lung Maturity from Infrared Spectra of Amniotic Fluid", <u>Am. J. Obstet. Gynecol.</u>, <u>178</u>, pp. 234-241, (1998)</p> <p>Mendelsohn, R., and Moore, D.J., "Vibrational Spectroscopic Studies of Lipid Domains in Biomembranes and Model Systems", <u>Chem. Phys. Lipids</u>, <u>96</u>, pp. 141-157, (1998)</p> <p>Moore, D.J., Rerek, M.E., and Mendelsohn, R., "Lipid Domains and Orthorhombic Phases in Model Stratum Corneum: Evidence from Fourier Transform Infrared Spectroscopy Studies", <u>Biochem. Biophys. Res. Commun.</u>, <u>231</u>, pp. 797-801, (1997)</p> <p>Moore, D.J., Gioioso, S., Sills, R.H., and Mendelsohn, R., "Some Relationships Between Membrane Phospholipid Domains, Conformational Order, and Cell Shape in Intact Human Erythrocytes", <u>Biochim. Biophys. Acta.</u>, <u>1415</u>, pp. 342-348, (1999)</p>	
Examiner Signature		Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 509. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Place a check here if English translation is attached.

DATE MAILED: August 22, 2001



Substitute for Form 1449A/P				Application Number	09/853,298
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Filing Date	May 10, 2001
				First Named Inventor	Nancy CAMACHO
				Group Art Unit	2878
				Examiner Name	
Sheet	2	of	5	Attorney Docket Number	00328/RSB

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		<p>Paschalis, E.P., Betts, F., DiCarlo, E., Mendelsohn, R., and Boskey, A.L., "FTIR Microspectroscopic Analysis of Normal Human Cortical and Trabecular Bone", <u>Calcif. Tissue Int.</u>, <u>61</u>, pp. 480-486, (1997)</p> <p>Paschalis, E.P., Betts, F., DiCarlo, E., Mendelsohn, R., and Boskey, A.L., "FTIR Microspectroscopic Analysis of Human Iliac Crest Biopsies from Untreated Osteoporotic Bone", <u>Calcif. Tissue Int.</u>, <u>61</u>, pp. 487-492, (1997)</p> <p>Camacho, N.P., Landis, W.J., and Boskey, A.L., "Mineral Changes in a Mouse Model of Osteogenesis Imperfecta Detected by Fourier Transform Infrared Microscopy", <u>Connect. Tissue Res.</u>, <u>35</u>, pp. 259-265, (1996)</p> <p>Camacho, N.P., Rimnac, C.M., Meyer, R.A.J., Doty, S., and Boskey, A.L., "Effect of Abnormal Mineralization on the Mechanical Behavior of X-Linked Hypophosphatemic Mice Femora", <u>Bone</u>, <u>17</u>, pp. 271-278, (1995)</p> <p>Gadaleta, S.J., Camacho, N.P., Mendelsohn, R., and Boskey, A.L., "Fourier Transform Infrared Microscopy of Calcified Turkey Leg Tendon", <u>Calcif. Tissue Int.</u>, <u>58</u>, pp. 17-23, (1996)</p> <p>Boskey, A.L., Guidon, P., Doty, S.B., Stiner, D., Leboy, P., and Binderman, I., "The Mechanism of Beta-Glycerophosphate Action in Mineralizing Chick Limb-Bud Mesenchymal Cell Cultures", <u>J. Bone Miner. Res.</u>, <u>11</u>, pp. 1694-1702, (1996)</p> <p>Kidder, L.H., Kalasinsky, V.F., Luke, J.L., Levin, I.W., and Lewis, E.N., "Visualization of Silicone Gel in Human Breast Tissue Using New Infrared Imaging Spectroscopy", <u>Nat. Med.</u>, <u>3</u>, pp. 235-237, (1997)</p> <p>Lewis, E.N., Kidder, L.H., Levin, I.W., Kalasinsky, V.F., Hanig, J.P., and Lester, D.S., "Applications of Fourier Transform Infrared Imaging Microscopy in Neurotoxicity", <u>Ann. N.Y. Acad. Sci.</u>, <u>820</u>, pp. 234-247, (1997)</p>	
Examiner Signature		Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. Place a check here if English translation is attached.

DATE MAILED: August 22, 2001

Substitute for Form 1449A/PTO		Application Number		09/853,298	
Filing Date		May 10, 2001			
First Named Inventor		Nancy CAMACHO			
Group Art Unit		2878			
Examiner Name					
Sheet	3	of	5	Attorney Docket Number	00328/RSB

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		Marcott, C., Reeder, R.C., Paschalis, E.P., Tatakis, D.N., Boskey, A.L., and Mendelsohn, R., "Infrared Microspectroscopic Imaging of Biomineralized Tissues Using a Mercury-Cadmium-Telluride Focal-Plane Array Detector", <u>Cell. Mol. Biol. (Noisy-le-grand)</u> , <u>44</u> , pp. 109-115, (1998)	
		Camacho, N.P., Mendelsohn, R., Grigiene, R., Torzilla, P.A., "Polarized FI-IR Microscopic Determination of Collagen Orientation in Articular Cartilage", 42nd Annual Meeting, Orthopaedic Research Society, February 19-22, 1996, Atlanta, Georgia	
		Camacho, N.P., West, P., Torzilli, P.A., Mendelsohn, R., "FTIR Microscopic Imaging of Collagen and Proteoglycan in Bovine Cartilage", <u>Biopolymers</u> , 62:1-8 (2001)	
		Potter, K., Kidder, L.H., Levin, I.W., Lewis E.N., Spencer R.G., "Imaging of Collagen and Proteoglycan in Cartilage Sections Using Fourier Transform Infrared Spectral Imaging", <u>Arthritis & Rheum</u> 44(4):846-855 (2001)	
		Schumacher, H.R., Klippel, J.H., and Koopman, W.J., "Articular Cartilage", <u>Primer on the Rheumatic Diseases</u> , 11 th edition, Atlanta: The Arthritis Foundation, pp. 14-18, (1993)	
		Horecker, B., Kaplan, N.O., Marmur, J., and Scheraga, H.A., "Collagens", <u>Conformation in Fibrous Proteins and Related Synthetic Polypeptides</u> , <u>New York: Academic Press</u> , editors Fraser, R.D.B. and MacRae, T.P., pp. 344-402, (1973)	
		George, A., and Veis, A., "FTIRS in H ₂ O Demonstrates that Collagen Monomers Undergo a Conformational Transition Prior to Thermal Self-Assembly In Vitro", <u>Biochemistry</u> , <u>30</u> , pp. 2372-2377, (1991)	
Examiner Signature		Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPSP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Place a check here if English translation is attached.

DATE MAILED: August 22, 2001



Substitution for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	09/853,298
				Filing Date	May 10, 2001
				First Named Inventor	Nancy CAMACHO
				Group Art Unit	2878
				Examiner Name	
Sheet	4	of	5	Attorney Docket Number	00328/RSB

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		<p>Lazarev, Y.A., Grishkovsky, B.A., Khromova, T.B., Lazareva, A.V., and Grechishko, V.S., "Bound Water in Collagen-Like Triple Helical Structure", <u>Biopolymers</u>, <u>32</u>, pp. 189-195, (1992)</p> <p>Bychkov, S.M., and Kuzmina, S.A., "Study of Tissue Proteoglycans by Means of Infrared Spectroscopy", <u>Biull. Eksp. Biol. Med.</u>, <u>114</u>, pp. 246-249, (1992)</p> <p>Bychkov, S.M., Bogatov, V.N., and Kuzmina, S.A., "Infrared Spectra of Cartilage Proteoglycans", <u>Bull. Eksp. Biol. Med.</u>, <u>90</u>, pp. 561-563, (1980)</p> <p>Bychkov, S.M., Bogatov, V.N., and Kuzmina, S.A., "Study of Different Proteoglycan Salts", <u>Bull. Eksp. Biol. Med.</u>, <u>92</u>, pp. 302-305, (1981)</p> <p>Buckwalter, J.A., and Mow, V.C., "Injuries to Cartilage and Meniscus: Sports Injuries to Articular Cartilage", DeLee, J.C., and Drez, D., Jr., <u>Orthopaedic-Sports Medicine Principles and Practice</u>, Philadelphia: W.B. Saunders Company, pp. 82-107, (1994)</p> <p>Potter, H.G., Linklater, J.M., Allen, A.A., Hannafin, J.A., and Haas, S.B., "Magnetic Resonance Imaging of Articular Cartilage in the Knee: An Evaluation With Use of Fast-Spin-Echo Imaging", <u>J. Bone Joint, Surg. Am.</u>, <u>80</u>, pp. 1276-1284, (1998)</p> <p>Recht, M.P., and Resnick, D., "Magnetic Resonance Imaging of Articular Cartilage: An Overview" <u>Top. Magn. Reson. Imaging</u>, <u>9</u>, pp. 328-336, (1998)</p> <p>Speer, D.P., and Dahners, L., "The Collagenous Architecture of Articular Cartilage, Correlation of Scanning Electron Microscopy and Polarized Light Microscopy Observations", <u>Clin. Orthop.</u>, <u>167</u>, pp. 267-275, (1979)</p>	
Examiner Signature		Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Place a check here if English translation is attached.

DATE MAILED: August 22, 2001



Substitute for Form 1449A/PTO

APR 23 2004

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Application Number

09/853,298

Filing Date

May 10, 2001

First Named Inventor

Nancy CAMACHO

Group Art Unit

2878

Examiner Name

Sheet

5

of

5

Attorney Docket Number

00328/RSB

OTHER PRIOR ART - NON-PATENT LITERATURE DOCUMENTS

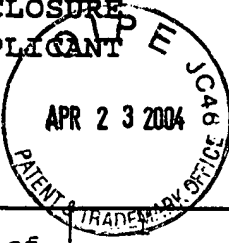
Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		<p>Panula, H.E., Hyttinen, M.M., Arokoski, J.P., Langsjo, T.K., Pelettari, A., Kiviranta, I., and Helminen, H.J., "Articular Cartilage Superficial Zone Collagen Birefringence Reduced and Cartilage Thickness Increased before Surface Fibrillation in Experimental Osteoarthritis", <u>Ann. Rheum. Dis.</u>, <u>57</u>, pp. 237-245, (1998)</p> <p>Gadaleta, S.J., Landis, W.J., Boskey, A.L., and Mendelsohn, R., "Polarized FT-IR Microscopy of Calcified Turkey Leg Tendon", <u>Connect. Tissue Res.</u>, <u>34</u>, pp. 203-211, (1996)</p> <p>Pachalis, E.P., F. Betts, E. DiCarlo, J.M. Lane, R. Mendelsohn, and A.L. Boskey, "Mineral and Organic Matrix Changes in Osteoporosis", <u>J. Dent. Res.</u>, <u>76</u>, p. 287 (1997)</p> <p>M. Khan, M. Yamauchi, S. Srisawasdi, D. Stiner, S. Doty, E.P. Paschalis, A.L. Boskey, "Homocysteine Decreases Chondrocyte-Mediated Matrix Mineralization in Differentiating Chick Limb-bud Mesenchymal Cell Micro-Mass Cultures", <u>Bone</u>, <u>28</u>, 387-398 (2001)</p> <p>Hollander, A.P., T.F. Heathfield, C. Webber, Y. Iwata, R. Bourne, C. Rorabeck, and A.R. Poole, (1994), "Increased Damage to Type II Collagen in Osteoarthritic Articular Cartilage Detected by a New Immunoassay", <u>Journal of Clinical Investigation</u>, <u>93</u>, pp. 1722-1732</p> <p>Griffiths, P.R., and J.A. de Haseth, (1986), "Fourier Transform Infrared Spectrometry", <u>Wiley-Interscience</u>, New York, <u>457</u>, pp. 188-193</p>	
Examiner Signature		Date Considered	

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Unique citation designation number. Place a check here if English translation is attached.

DATE MAILED: August 22, 2001

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT 			Application Number	09/853,298
			Filed	May 10, 2001
			First Named Inventor	Nancy P. CAMACHO
			Group Art Unit	3737
			Examiner Name	Ruth S. Smith
Sheet	1	of	Attorney Docket Number	00328/RSB

U.S. PATENT DOCUMENTS

Exam. Inits [*]	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
		6,230,044	B1	AFANASSIEVA et al.	05-08-2001	
		2001/0048077	A1	AFANASSIEVA	12-06-2001	

FOREIGN PATENT DOCUMENTS

Exam Inits [*]	Cite No ¹	offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶
		DE	19841217	A1	ACSPECT CORP.	04-29-1999		*

Examiner
SignatureDate
Considered

* EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 509. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Place a check here if English translation is attached.

DATE MAILED: March 11, 2004

*English-language abstract enclosed; USP 6,230,044 and USP 2001/0048077 are related family members of DE 19841217